In the Drawings

Please replace figure 1 with the enclosed new figure 1. No new matter was added as there is adequate support in the specification.

In the Claims

1. (currently amended) An electrochemical gas sensor, comprising:

a substrate having a surface;

a first electrode deposited on said surface;

a second electrode spaced apart from said surface; and

an electrolyte support placed between said surface and said second electrode and having a predetermined porosity; wherein said electrolyte support is in a solid state and further comprises a plurality of columns.

2. (cancelled)

3. (original) The electrochemical gas sensor according to claim 2, further including electrolyte being placed between said plurality of columns.

4. (original) The electrochemical gas sensor according to claim 3, further including a coating on said second electrode for preventing flooding by said electrolyte.

5. (original) The electrochemical gas sensor according to claim 1, wherein said electrolyte support further includes a cap.

6. (original) The electrochemical gas sensor according to claim 2, wherein said plurality of columns are helix shaped.

7. (original) The electrochemical gas sensor according to claim 3, wherein said electrolyte is an acid solution.

8. (original) The electrochemical gas sensor according to claim 1, wherein said predetermined porosity is in the range of between 5% and 80%.

9. (original) The electrochemical gas sensor according to claim 1, wherein said predetermined porosity is in the range of between 5% and 50%.

10. (original) The electrochemical gas sensor according to claim 1, wherein said predetermined porosity includes a pore size in the range of between .0002 and 10 microns.

11. (original) The electrochemical gas sensor according to claim 1, wherein said predetermined porosity includes a pore size in the range of between .0002 and 2 microns.

12. (original) The electrochemical gas sensor according to claim 1, wherein said second electrode has a porosity magnitudes less than said electrolyte support.

13. (original) The electrochemical gas sensor according to claim 1, wherein said second electrode further includes a porosity of less than 5% and a pore size not exceeding the smaller of either a width or length of said second electrode at a pore's greatest measurement.

14. (original) The electrochemical gas sensor according to claim 1, wherein said second electrode provides improved lamination to said electrolyte support. 15-23. (withdrawn)

15. (withdrawn) A method for providing an electrochemical gas sensor, comprising:

providing a substrate;

depositing a first electrode on said substrate;

depositing an electrolyte support on said first electrode and said substrate for forming a plurality of columns;

capping said electrolyte support; and

depositing a second electrode on said capped electrolyte support.

16. (withdrawn) The method according to claim 15, further comprising the step of introducing a solution into said electrolyte support for providing an electrolytic film.

17. (withdrawn) The method according to claim 15, further comprising the step of sputter and vapor deposition coating said first electrode.

18. (withdrawn) The method according to claim 15, further comprising the step of sputter and vapor deposition coating said second electrode.

19. (withdrawn) The method according to claim 15, further comprising the step of capping said electrolyte support between 0 and 60 degrees from a substrate normal.

20. (withdrawn) The method according to claim 15, further comprising the step of improving lamination to said electrolyte support by depositing said second electrode.

21. (withdrawn) A method for providing an electrochemical sensor, comprising:

providing a substrate;

directing a vapor for an electrolyte support towards said substrate in a generally angular direction for forming a plurality of columns; and

rotating the substrate about an axis generally parallel to a plane of the substrate for capping the plurality of columns.

22. (withdrawn) The method according to claim 21, further comprising the step of rotating the substrate about an axis generally perpendicular to the plane of the substrate for forming helically shaped columns.

23. (withdrawn) The method according to claim 21, wherein the substrate is rotated between 0 and 60 degrees from a substrate normal.

24. (new) An electrochemical gas sensor, comprising:

a substrate having a surface;

a first electrode deposited on said surface;

a second electrode spaced apart from said surface; and

an electrolyte support placed between said surface and having a pore size between .0002 and 10 microns.